



MTC 6610
39-21(3631D)
PATENT

RECEIVED
SEP 24 2001

TECH CENTER 1600/2900

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of Jerry R. Ebner, et al.

Art Unit 1623

Serial No. 09/408,323

Filed September 29, 1999

Confirmation No. 3903

For DEEPLY REDUCED OXIDATION CATALYST AND ITS USE

IN PREPARING N-(PHOSPHONOMETHYL)GLYCINE COMPOUNDS

Examiner L. Maier

September 19, 2001

**FOURTH SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENT**

In accordance with 37 C.F.R. §1.97 and 1.98 and MPEP 609, and in compliance with the duty of disclosure set forth in 37 C.F.R. §1.56, applicants submit this Fourth Supplemental

* Information Disclosure Statement, including copies of the

* additional references listed on the attached PTO/SB/08A, for consideration by the Patent and Trademark Office in the above-entitled application and to be made of record herein.

In the Third Supplemental Information Disclosure Statement filed by applicants on July 3, 2001, information was provided regarding oppositions filed by Monsanto Company, the assignee of the instant application, against European Patent No. 0 019 445 and a corresponding accepted application in Australia (Australian Application No. 58285/80; accepted under Australian Serial No. 542716) in the name of Nitrokemia Ipartelepek. Specific mention was made of an affidavit submitted by Monsanto Company in connection with these opposition proceedings. This affidavit, executed by Thomas J. Richard on July 16, 1985 (hereinafter the Richard affidavit), was lodged in the Australian Patent Office on

August 14, 1985 in connection with Monsanto Company's opposition to Australian Serial No. 542716.

* Applicants have ordered and obtained a copy of the contents of the application files for European Patent No. 0 019 445 and Australian Serial No. 542716 from the European and Australian Patent Offices. The Richard affidavit, a copy of which is submitted herewith, was included in the materials obtained by applicants from the Australian Patent Office. The public may obtain a copy of the contents of the application files for European Patent No. 0 019 445 and Australian Serial No. 542716 from the European and Australian Patent Offices upon request and payment of the applicable fees.

The Richard affidavit contains data showing that the conversion rate in the oxidation of N-(phosphonomethyl)iminodiacetic acid substrate to glyphosate is a linear function of catalyst concentration using a carbon catalyst at concentrations of 0.8 to 1.2% by weight and a starting N-(phosphonomethyl)iminodiacetic acid concentration of 7.3 g per 92.0 ml water. Based on this data, the Richard affidavit concludes that "changes in 'specific conversion' value may be obtained simply by increasing the catalyst charge at a given temperature and pressure, regardless of the concentration of starting material. Anyone skilled in the art would recognize that the reaction rate for such a process is also dependent on pressure, temperature and the activity of the catalyst used." Richard affidavit at paragraph 23 (emphasis in original). Later in the Richard affidavit, it is stated with respect to the oxidation of N-(phosphonomethyl)iminodiacetic acid that "[i]n

fact the reaction rate depends upon the concentration of catalyst in the aqueous system at any given oxygen pressure, and operating temperature, and is absolutely independent of the amount of N-PMIDA starting material in the system at all relevant concentrations." Richard affidavit at paragraph 25.

As noted in the above-mentioned Third Supplemental Information Disclosure Statement, it is not stated on the record of the application files for European Patent No. 0 019 445 or Australian Serial No. 542716 that the oxidation of N-(phosphonomethyl)iminodiacetic acid substrate to glyphosate is zero order. There is no mention of the order of the reaction. However, the above-quoted statement in paragraph 25 of the Richard affidavit might be understood by those skilled in the art as indicating that the oxidation reaction is in fact zero order at some concentrations of the N-(phosphonomethyl)iminodiacetic acid substrate.

In response to the Richard affidavit, Nitrokemia Ipartelepek submitted the declaration of Dr. Peter Hajdu (hereinafter the Hajdu declaration) to the Australian Patent Office. The Hajdu declaration, a copy of which is submitted herewith, was included in the contents of the application file for Australian Serial No. 542716 obtained by applicants from the Australian Patent Office. The Hajdu declaration at least partially refutes the above-quoted statement in paragraph 25 of the Richard affidavit. Hajdu declaration at paragraph 20.

For purposes of this submission, it is assumed that the contents of the application file for Australian Serial No. 542716, including the Richard affidavit and Hajdu declaration,

MTC 6610
39-21(3631D)
PATENT

were available for inspection and copying by the public more than one year prior to the effective filing date of the subject patent application. For purposes of initial examination only, applicants stipulate that the Richard affidavit and Hajdu declaration be treated as prior art under 35 U.S.C. §102. However, applicants expressly reserve the right to contest the prior art status of these documents.

Applicants submit that pending claims 1-247 distinguish patentably over the art now of record.

* A check in the amount of \$180.00 is enclosed to cover the fee specified in 37 C.F.R. §1.17(p) for submission of this Information Disclosure Statement. The Commissioner is hereby authorized to charge any additional fees required under 37 C.F.R. 1.16 and 1.17 or refund any overpayment to Deposit Account No. 19-1345.

Respectfully submitted,



Vincent M. Keil, Reg. No. 36,838
SENNIGER, POWERS, LEAVITT & ROEDEL
One Metropolitan Square, 16th Floor
St. Louis, Missouri 63102
(314) 231-5400

VMK

*Enclosure/Attachment

Express Mail Label No. EL 739389373 US



09-20-01

FEE TRANSMITTAL

12 1623
209-254

Application Number 09/408,323
Filing Date September 29, 1999

Art Unit 1623

Confirmation No. 3903

Inventor(s) Jerry R. Ebner et al.

Examiner Name Leigh C. Maier

Attorney Docket Number MTC 6610 (39-21 3631)

RECEIVED

SEP 24 2001

METHOD OF PAYMENT

1. ☐ The Commissioner is hereby authorized to charge the indicated fees to Deposit Account No. 19-1345.
- ☐ The Commissioner is hereby authorized to charge any additional fees required under 37 CFR 1.16 and 1.17 to Deposit Account No. 19-1345.
- ☐ Applicant claims small entity status.
- * 2. ☒ Check Enclosed. The Commissioner is hereby authorized to charge any under payment or credit any over payment to Deposit Account No. 19-1345.

TECH CENTER 1600/2900

FEE CALCULATION

1. ☐ BASIC FILING FEE Subtotal (1) \$ _____
(Type: _____)
2. ☐ EXTRA CLAIM FEES Subtotal (2) \$ _____
- Total Claims _____
Independent Claims _____
Multiple Dependent Claims _____
3. ☒ ADDITIONAL FEES Subtotal (3) \$ 180.00
- ☐ Surcharge - late filing fee or oath
☐ Surcharge - late provisional filing fee or cover sheet
☐ Extension for reply within _____ month
☐ Notice of Appeal
☐ Filing a Brief in Support of an appeal
☐ Request for ex parte Reexamination
☐ Petitions to the Commissioner
☒ Submission of Information Disclosure Statement
☐ Recording each patent assignment per property
☐ Request for Continued Examination
☐ Other: _____

TOTAL AMOUNT OF PAYMENT \$ 180.00

Vincent M. Keil
Vincent M. Keil, Reg. No. 36,838

September 19, 2001
Date

VMK/msc

*Enclosure

Express Mail Label No. EL 739389373 US